AMENDMENTS

In the Figures

The drawings are objected to as failing to comply with 37 CFR § 1.84(p)(5). Figures 1, 6A, 7, 8A, 8B, 8C, and 8D have been amended as set forth in red in a separate response sent to the attention of the Official Draftsperson to address this rejection.

REMARKS

Claims 1 - 39 are pending in the application. Claims 1 - 39 have been rejected. Claims 1, 14, and 27 have been amended. Claims 2 - 4, 15 - 17, and 28 - 30 have been cancelled.

The drawings are objected to as failing to comply with 37 CFR § 1.84(p)(5). Figures 1, 6A, 7, 8A, 8B, 8C, and 8D have been amended as set forth in red in a separate response sent to the attention of the Official Draftsperson to address this rejection. Additionally, regarding the objection to Figure 6, the Examiner is directed to Page 6, lines 24 and 25 of the application which sets forth that Figures 6A and 6B are generally referred to as Figure 6.

Claims 1, 2, 5, 6, 9 – 11, 13 – 15, 18, 19, 22 – 24, 26 – 28, 31, 32, 35 – 37 and 39 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Skaaning et al, U.S. Patent No. 6,535,865 (Skaaning). Claims 3, 4, 7, 8, 12, 16, 17, 20, 21, 25, 29, 30, 33, 34 and 38 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Skaaning in view of Weinberg et al., U.S. Patent No. 6,587,969 (Weinberg).

The present invention generally relates to a search portion of a decision tree module for generating solution knowledge. The search portion renders trees in a format that allows a novice level user to navigate through trouble shooting steps one step at a time while more experiences user has the ability to pick and choose which steps to use. The troubleshooting steps are rendered in a hierarchical view that can be bypassed by skipping steps (i.e., implied success). (See e.g., Application, page 4, lines 15 – 24.)

More specifically, the present invention, as set forth by independent claim 1, relates to a method for searching potential solutions within a solution network. The method includes authoring a solution to solve an issue, storing the solution within a decision tree relating to the issue, searching the solution network based upon the issue where the searching includes accessing the decision tree relating to the issue, and presenting results of a search in a graphical presentation. The presenting includes rendering results of the search in a hierarchical view which enables a user to bypass certain solutions by skipping steps, and rendering results of the search in a tree format which enables navigating through trouble shooting steps one step at a time and enables a user to pick and choose particular steps to access.

The present invention, as set forth by independent claim 14, relates to an apparatus for searching potential solutions within a solution network. The apparatus includes means for authoring a solution to solve an issue, means for storing the solution within a decision tree relating to the issue, means for searching the solution network based upon the issue where the search includes accessing the decision tree relating to the issue, and means for presenting results of a search in a graphical presentation. The means for presenting includes means for rendering results of the search in a hierarchical view which enables a user to bypass certain solutions by skipping steps, and means for rendering results of the search in a tree format which enables a user to navigate through trouble shooting steps one step at a time and enables a user to pick and choose particular steps to access.

The present invention, as set forth by independent claim 27, relates to a system for searching potential solutions within a solution network. The system includes an authoring module, a storing module, a searching module and a presenting module. The authoring module enables authoring a solution to solve an issue. The storing module stores the solution within a decision tree relating to the issue. The searching module searches the solution network based upon the issue and the searching includes accessing the decision tree relating to the issue. The presenting module includes a first and a second rendering module and presents results of a search in a graphical presentation. The first rendering module renders results of the search in a hierarchical view which enables a user to bypass certain solutions by skipping steps. The second rendering module renders results of the search in a tree format which enables a user to navigate through trouble shooting steps one step at a time and enables a user to pick and choose particular steps to access.

Skaaning relates to automated diagnosis of printer systems via a troubleshooter that uses Bayesian networks. Skaaning sets forth that a Bayesian network is a directed acyclic graph representing the causal relationships between variables that associated conditional probability distributions to variables given their parents. (See e.g., Skaaning, Col. 2, lines 41 – 45.) Skaaning further sets forth that Bayesian networks provide a way to model problem areas using probability theory. (See e.g., Skaaning, Col. 2, lines 60 – 63.) The troubleshooter uses Bayesian networks to model a system component causing failure of a system and includes an indicator node, a plurality of cause nodes and a first plurality of troubleshooting nodes. The indicator

node has a state that indicates whether the system component is causing a failure. Each cause node represents a cause of the system component producing a failure. Each troubleshooting node represents a troubleshooting step. Each troubleshooting step suggests an action to remedy causes represented by any cause nodes to which the troubleshooting node is coupled. A causes node represents a probability distribution over causes for failure of the system component. (See e.g., Skaaning, Col. 5, lines 5 – 16.)

The Examiner cites to the following portion of Skaaning for the elements authoring a solution to solve an issue and storing the solution within a decision tree relating to the issue:

> The preferred embodiment of the present invention presents a knowledge acquisition (authoring) method for constructing automated troubleshooters in a highly efficient manner, by following a clearly defined process. The knowledge acquisition is commonly recognized as the bottleneck of automated troubleshooters as it is usually cumbersome and very time-consuming. The preferred embodiment of an automated troubleshooter in accordance with a preferred embodiment of the present invention puts constraints on the general Bayesian network modeling phase, and only allows very strict simpler structures--thus limiting the scope and increasing the efficiency of the knowledge acquisition (Skaaning Col. 6, lines 10 - 21).

However, this portion of Skanning, and in fact nowhere in Skanning, is there any disclosure or suggestion of storing the solution within a decision tree relating to the issue as claimed and supported within the present application.

Weinberg relates to user interfaces for testing the functionality of transactional servers. Weinberg discloses a testing tool that automatically records a series of user steps taken during a user session with a transactional server and generates a test for testing the functionality of server. Through a user interface of the testing tool, the user can define verification steps to automatically test for expected server responses during test execution. The testing tool displays the test to the user as a tree having nodes (displayed as icons) which represent steps of the test. Via the user interface, the user can modify node properties and perform other types of tree edit operations to edit the test. When the user selects a node that corresponds to a particular field or other object of the server screen, the testing tool automatically displays the screen with the object highlighted. The testing tool also allows the test author to use a spreadsheet to conveniently specify data sets for running multiple iterations of a test; thus, the user can record a single transaction and then automatically test the transaction with other data sets.

Skaaning and Weinberg, taken alone or in combination, do not teach or suggest a method for searching potential solutions within a solution network where the method includes *storing the solution within a decision tree relating to the issue*, searching the solution network based upon the issue where the searching includes accessing the decision tree relating to the issue, and presenting results of a search in a graphical presentation, much less such a method where *the presentation includes rendering results of the search in a hierarchical view which enables a user to bypass certain solutions by skipping steps, and rendering results of the search in a tree format which enables navigating through trouble shooting steps one step at a time and enables a user to pick and choose particular steps to access*, all as required by claim 1. Accordingly, claim 1 is allowable over Skaaning and Weinberg. Claims 5 - 13 depend from claim 1 and are allowable for at least this reason.

Skaaning and Weinberg, taken alone or in combination, do not teach or suggest an apparatus for searching potential solutions within a solution network where the apparatus includes *means for storing the solution within a decision tree relating to the issue*, means for searching the solution network based upon the issue where the search includes accessing the decision tree relating to the issue, and means for presenting results of a search in a graphical presentation, much less such an apparatus where the means for presenting includes *means for rendering results of the search in a hierarchical view which enables a user to bypass certain solutions by skipping steps, and means for rendering results of the search in a tree format which enables a user to navigate through trouble shooting steps one step at a time and enables a user to pick and choose particular steps to access*, all as required by claim 14. Accordingly, claim 14 is allowable over Skaaning and Weinberg. Claims 18 - 26 depend from claim 14 and are allowable for at least this reason.

Skaaning and Weinberg, taken alone or in combination, do not teach or suggest a system for searching potential solutions within a solution network where the system includes an authoring module, a storing module, a searching module and a presenting module where *the storing module stores the solution within a decision tree relating to the issue* and the searching module searches the solution network based upon the issue and *the searching includes accessing the decision tree relating to the issue* much less such a system where the presenting module includes a first and a second rendering module where *the first rendering module renders results*

of the search in a hierarchical view which enables a user to bypass certain solutions by skipping steps and the second rendering module renders results of the search in a tree format which enables a user to navigate through trouble shooting steps one step at a time and enables a user to pick and choose particular steps to access, all as required by claim 27. Accordingly, claim 27 is allowable over Skaaning and Weinberg. Claims 31 - 39 depend from claim 27 and are allowable for at least this reason.

CONCLUSION

In view of the amendments and remarks set forth herein, the application is believed to be in condition for allowance and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the examiner is requested to telephone the undersigned.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Mail Stop Non-Fee Amendment, Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450, on May 5, 2006.

Attorney for Applicant(s) — Date of Signature: 5/5/06

Respectfully submitted,

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